

The Bilingual Child as a Word Maker: Word Formation Processes in Turkish and Dutch

Author(s): Ludo T. Verhoeven

*Proceedings of the Fourteenth Annual Meeting of the Berkeley Linguistics Society* (1988), pp. 232-243

Please see “How to cite” in the online sidebar for full citation information.

Please contact BLS regarding any further use of this work. BLS retains copyright for both print and screen forms of the publication. BLS may be contacted via <http://linguistics.berkeley.edu/bls/>.

---

*The Annual Proceedings of the Berkeley Linguistics Society* is published online via [eLanguage](#), the Linguistic Society of America's digital publishing platform.

## **THE BILINGUAL CHILD AS A WORD MAKER: WORD FORMATION PROCESSES IN TURKISH AND DUTCH**

Ludo T. Verhoeven  
Tilburg University, The Netherlands

Linguistic competence in any language includes a lexicon of well-established words and a repertoire of word formation devices for extending the existing lexicon. New meanings can be expressed with forms which fit the word formation options of that particular language. Basically, two types of word formation devices can be distinguished. On the one hand, stem modification in which a single base is related to a form which is altered in some way. On the other hand, compounding in which a set of two or more independent bases are related to a form in which they are combined in some way. Anderson (1985) has noted that there is a good deal of idiosyncrasy in word formation devices in different languages, and that in any single language word formation rules are quite diverse in terms of input classes and semantic and syntactic relations involved.

In the process of language acquisition, children must learn the diversity of options for coining words in the language under consideration. In a number of studies the acquisition of word formation devices has been investigated. For such diverse languages as English (Clark 1981; Clark & Hecht 1982; Clark, Hecht & Mulford 1986), Hebrew (Berman & Sagi 1982; Walden 1982) and Turkish (Ekmekçi 1986), it was found that children at an early age start coining words in order to fill lexical gaps. Gradually, children give up some of their own coinages in favor of words already established in the lexicon of the language. Clark has claimed that at least three general principles govern the course of acquisition of word formation rules. The first principle is semantic transparency stating that known elements with one-to-one matches of meaning and form are most transparent for constructing and interpreting new words. The second principle is regularization saying that children will use the same device everywhere to mark the same meaning. The third principle is productivity predicting that those word formation devices used most often by adults in word innovations are preferred in the language for constructing new word forms.

Clark (1982, 1983) stressed the importance of cross-linguistic evidence on the structure and use of word formation devices in different types of languages. Taking a cross-linguistic point of view as a starting point, Clark & Berman (1984) compared word formation strategies in English and Hebrew. They found that English-speaking and Hebrew-speaking children acquiring a first language indeed rely on several general principles, but that such principles must gradually be modified in light of the typology of the language being learned. What is general in acquisition appears to be gradually shaped by each particular language as children learn how different options are developed in the conventional

lexicon and how to put these options to work in constructing new words. Other attempts in highlighting cross-linguistic notions in the acquisition of word formation devices have been made with reference to bilinguals. However, studies on the development of word formation rules in bilinguals are scarce. Kennedy-Jonker (1984) conducted an experimental study on the lexical innovations of two English-Dutch-speaking children at the age of 5 and 7. The children were asked to produce names for agents and instruments in the two languages in an elicitation task. Some evidence was found for the principles of productivity and regularity in English, but not in Dutch. No instances of interference of word formation rules in the two languages were reported. Olshtain (1987) studied the acquisition of word formation processes in Hebrew in intermediate and advanced second language learners. Data collection instruments consisted of production and evaluation questionnaires dealing with the definition of specific agents, instruments and places. She found that advanced learners of Hebrew were able to produce and evaluate innovations in ways that approximate native speaker responses. Both groups of learners showed a slight preference for compounding over affixation. The intermediate group, on the other hand, tended to provide less innovations and fewer existing words. Surprisingly, they showed a preference for affixation over compounding. The latter result was explained from the fact that affixation in second language classes is highly stressed. The native language influence on second language word formation was judged minimal for all learners. In the context of the European Science Foundation project on second language acquisition in migrant workers, the development of word formation processes in talking about entities was studied (Broeder, et al., in press). Deriving from a common data base for learners of Dutch, Swedish and English, it was found that noun-noun compounding was by far the most productive word formation process, modifier-head constructions being the basic patterns. There was some evidence of source language influences. Furthermore, the occurrence of binding phonemes in Dutch and Swedish resulted in an additional problem for learners of these languages. Derivational devices of word formation played only a minor role in the early learner varieties.

In the present study cross-linguistic evidence is taken into account by studying the word formation strategies in Turkish and Dutch of Turkish children in the Netherlands. These children, most of whom were born in the Netherlands, participate in a linguistic network which is quite complex. Their early language input is Turkish, while the Dutch language comes into their lives by way of Dutch playmates, television and school. By the age of six these children can be considered bilinguals whose Turkish and Dutch language systems are in a state of flux. For the present study the development of word formation strategies in spontaneous speech was followed from age 6 to age 8 in a longitudinal design. The goals of the study were:

1. To assess the development of word formation processes in Turkish and Dutch. Specifically, it will be determined to what

extent children make use of affixation and compounding devices in the two languages. A distinction is made between conventional devices which are already established in the lexicon and innovative word forms created by the child.

2. To find out what general mechanisms underlie the choice and construction of word forms in Turkish and Dutch. As such, cross-linguistic evidence for the principles of semantic transparency, productivity and regularization is aimed at.

3. To investigate to what extent the processes of lexical development in the two languages interact. Incorporation of lexemes of one language in word formation processes in the other is analyzed. Moreover, interlingual influences of word formation devices in the two languages are examined.

### **The Present Study**

#### Data collection

The data were collected from a group of 40 Turkish children (20 boys and 20 girls) at two age levels: 6 and 8 years. The children were recruited from primary schools in fairly big cities in the eastern part of the Netherlands. Turkish was the mother tongue for all children. By age 6, they had been living in the Netherlands for at least two years, during which period they attended nursery school. Turkish was not taught in Kindergarten and made up only a small part of the curriculum in primary school. The parents of the children originate from small villages in central Anatolia and the Black Sea region in Turkey; in the Netherlands they all work in factories or are owners of small shops.

Informal adult-child interviews which took approximately 30 minutes were recorded in Turkish and Dutch at the start of the first grade and by the end of the second grade of primary school. In the case of Turkish, the adult interviewers were native speakers of Turkish; in the case of Dutch, they were native speakers of Dutch. The interviews were structured in a more or less standardized way. At each occasion, speech was elicited from the children by means of three different procedures: by asking for a spatial description on the basis of a picture, by asking for a description of a sequence of events on the basis of a series of pictures, and by some free interviewing between the child and the interviewer.

The recorded speech of the interviews was transcribed. In these transcriptions the contributions of the adult interviewer were also included. All instances of derivation and compounding during the interviews were marked for further analysis.

#### Word formation options in Turkish and Dutch

Word formation in Turkish, being an agglutinating language, highly depends on affixation. Affixes are postposed, syllabic, regular and distinct. Turkish phonology does not subsequently obscure the borders between formatives. The inflectional system is close to a one-by-one mapping of semantic elements and surface

forms.

Not only was a broad range of affixes actually instantiated in the lexicon at the time of Ottoman Turkish; thanks to the work of the Türk Dil Kurumu (Turkish Linguistic Society), many of the word formation suffixes were applied to new forms in order to reduce the number of Arabic and Persian loanwords. In addition to the revival of existing Turkish suffixes, derivational markers were taken from non-standard dialects and from other Turkic languages. According to Lewis (1967), a broad range of suffixes can be thought of as highly productive in contemporary Turkish. Examples of productive suffixes are given below.

- (1) iş (work) ---> iş-çi (worker)
- (2) çocuk (child) ---> çocuk-luk (childhood)
- (3) oku- (to read) ---> oku-yucu (reader)
- (4) ol- (to be) ---> ol-ay (fact)
- (5) kazan- (to win) ---> kazan-ç (gain)
- (6) göz (eye) ---> göz-lemek (to keep an eye on)
- (7) şeker (sugar) ---> şeker-li (sweet)
- (8) değiş- (to change) ---> değiş-ik (different)

The suffix -CI is added to singular nouns and occasionally to adjectives to denote persons who are professionally concerned with the quality expressed by the basic word (1). The suffix -lik is used to make abstract nouns (2). There are several suffixes used to denote deverbal nouns, e.g. (3), (4) and (5). Denominal verbs are primarily formed by the addition of -lEmEk (6). Adjectives can be formed by adding a suffix to a noun (7), or to a verb stem (8).

Turkish also favors compounding (see Dede 1978). The basic syntactic structure of a nominal compound is a head noun with a possessive, preceded by a modifying noun (9). The modified noun of a nominal compound can also be derived from a verbal predicate (10). If there is an attributive relationship between two lexemes, compounding in Turkish is also possible by simple juxtaposition, such as in (11). Words indicating nationality are nouns and are therefore joined to a following noun by the same procedure (12). Adding -li to the same word denotes a person with that nationality, while the addition of -CE results in a word denoting of the language being spoken.

- (9) yatak oda-sı (bed room-POSS > bedroom)
- (10) yüzme havuz-u (swim pool-POSS > swimming pool)
- (11) kız arkadaş (girl friend)
- (12) İngiliz öğretmen-i (english teacher-POSS > English teacher)

Word formation in Dutch is also primarily associated with affixation and compounding. However, it seems that many items which in Turkish are dealt with affixation, are in Dutch expressed by compounding, e.g. kitap-çı/boek-verkoper (book seller), kitap-lık/boeken-plank (book shelf). As was demonstrated by Booij (1977), the productivity of rules for derivation in Dutch is

restricted by phonological, morphological and syntactic conditions on the bases of these rules. Some of these conditions are rule-independent, others are rule-specific.

Unlike Turkish, Dutch does not morphologically mark nominal compounds. Dutch compounds are often characterized by additional elements not essentially associated with any of the compound words but rather with the compound structure itself. One of the phonological elements (-e-, -s-, -en-, -er-) is often inserted between the two lexemes. From a synchronic point of view these elements can only be interpreted as a sort of morphonological glue. Van den Toorn (1982) has shown that the occurrence of such binding phonemes can at least partially be motivated by phonological, syntactic and semantic constraints.

Results

Word formation processes in Turkish

In Table 1 the distribution of word formation devices of the 6- and 8-year-old Turkish children in Turkish are presented. A distinction is made between innovated and established samples of compounding and derivation.

Table 1: Compounding and derivation in Turkish as a function of age and conventionality

	6-year-olds		8-year-olds	
	innovated	established	innovated	established
Compounding	26	68	53	63
Derivation	31	87	11	170

It can be seen that at both age levels derivation is favored over compounding. There is a clear developmental trend in that the total number of word formation devices used increases as children grow older. In general, the children's word formation devices at age 8 are carried by appropriate forms to a much higher degree than at age 6. At the age of 6, about one third of the word formation devices are innovated. At the age of 8, children relatively innovated more compounds and less derivations. However, the increase in number of innovated compounds can be accounted for by a sharp increase of children's incorporation of sey (thing) in nominal compounds.

Table 2 presents the syntactic structure of the children's devices for compounding.

Table 2: Compounding processes in Turkish as a function of age and conventionality

	6-year-olds		8-year-olds	
	innovated	established	innovated	established
Noun + Noun	18	60	40	61
Verb + Noun	1	2	5	1
Adj. + Noun	7	6	-	1
Noun + Verb + Noun	-	-	8	-

It can be seen that nominal compounds outnumber other types of compounds. As was noted before, the increase of innovated nominal compounds at age 8 can be accounted for by the children's incorporation of *şey* (thing). Apparently, at that age children have fully discovered the structure of nominal compounds as a device for filling momentary lexical gaps. *Şey* occurred in nominal compounds as the filler of the modified noun (13), or as the filler of the head noun (14), and in NVN-compounds as the filler of the head noun (15).

- (13) *çay şey-i* (tea thing)
- (14) *şey motor-u* (thing motor)
- (15) *balık tutma şey-i* (fish catch thing)

At age 6, the general syntactic rule for constructing nominal compounds (N1 + N2-POSS) did not cause great problems. The absence of the possessive marker was usually motivated in innovations signalling a close attributive relationship between the modified noun and the head noun, such as in *oyuncak tavuk* (play duck). In some cases the use of the possessive was overgeneralized, such as in *oyuncak bıçakçığı-ı* (play knife). Only with reference to nationalities the general rule for making compounds posed a problem for children in that the possessive marker was almost never used, such as in *Türk çocuk* (Turkish child). However, at age 8 the non-use of the possessive marker was much more general. It occurred in 14 percent of all nominal compounds observed. It can tentatively be proposed that this deletion of the possessive marker is due to the children's process of second language acquisition. It will be remembered that the basic pattern for compounding in Dutch is the simple juxtaposition of two nouns.

Incidentally, there were cases in which compounding seemed to be avoided by the children. In cases where the target language would require a compound, some children constructed a nominal phrase (16), or added binding suffixes such as *-DEn* (17) and *-lI* (18) to the modified noun signalling an attributive relationship to the head noun.

- (16) *kadın-ın bisiklet-i* (ladies' bicycle)
- (17) *oyuncak-tan araba* (play-ABL car)
- (18) *güldürüş-lü film* (laughter-with film)

In some cases, children incorporated Dutch lexemes in nominal compounds either as the head noun (19), or the modified noun (20).

- (19) *kus staart-ı* (bird tail-POSS)
- (20) *vogel ev-i* (bird house-POSS)

Table 3 presents the distribution of the main derivational markers expressed by the children in Turkish. It can be seen that at both age levels a broad variety of derivational markers is used. Furthermore, it turns out that the number of innovations decreases

as the children grow older.

**Table 3:** Derivational processes in Turkish as a function of age and conventionality.

	6-year-olds		8-year-olds	
	innovated	established	innovated	established
-cI	4	7	5	16
-(cI)lIk	20	17	1	60
-lE(ş)mEk	-	6	1	31
-lI	-	19	3	33
-c	-	-	-	4
-cE	5	17	1	13
-gil	2	21	-	13

The markers cI, -lIk, -lE(ş)mEk, -lI, -c and -cE displayed by the children all turn out to be productive ones in Turkish. It is remarkable that especially the very productive markers -cI and -(cI)lIk quite often occur in children's innovations. The suffix -cI is innovated in cases in which some kind of agency is to be expressed, such as in karate-ci (someone who does karate) and taksi-ci (taxi driver). The suffix is overgeneralized in nouns which already refer to people of various occupations, e.g. öğretmen-ci (teacher-AGENT). At the age of 6, -cI is also frequently used as part of the compound suffix -cIlIk denoting some kind of occupation in the context of play (21). Again, the suffix is also overgeneralized in connection with nouns which already denote the function of agent (22).

(21) ev-ci-lik oynamak (house-AGENT-NOUN play > to play housekeeping)

(22) komşu-cu-luk oynamak (neighbor-AGENT-NOUN play > to play neighbors)

In deriving adjectives, children frequently use -lI. Incidentally, this suffix is overgeneralized in some cases, such as temiz-li (clean-ADJ) and gülünçlü (comic-ADJ). The formation of verbs by means of -lE(ş)mEk frequently occurs at age 8. The suffix -cE is incidentally used to modify adjectives, e.g. güzel-ce (quite good) or to build nouns from verbs, e.g. saklanma-ca (hide-NOUN hide-and-seek). At both age levels the children frequently used the suffix -gil denoting 'family of'. It is usually attached to nouns expressing relatives, e.g. annem-gil (my mother's family). In some cases the children used the suffix in combination with neutral persons, such as in adam-gil (the man's family).

In general, the children had trouble in attaching the right suffixes to nouns denoting nationalities. The suffixes expressing 'belonging to place' (-lI) and 'language being spoken' (-cE) were quite often absent.

In several cases, Turkish suffixes were freely attached to



Dutch lexemes. Especially the suffix *-ci* was frequently used, as in patat-ci (seller of potato chips) and ijs-ci (seller of icecream). Dutch verbal material was usually encountered as Dutch infinitives followed by one of the Turkish auxiliaries yapmak (to do) or etmek (semantically neutral). Examples are schrijven yapmak (to write) and verhaaltje lezen etmek (to read a story). However, a broad range of varieties was used to express Dutch verbs in Turkish. In (23) the different expressions for the Dutch game 'tikkertje spelen' (to play tag) as found in our data are given.

- (23) **tikken** yapmak/etmek (touch-**INF** + Turkish AUX)  
**tikkie** yapmak ('tikkie' is often vocalized during play)  
**tikker-ci** yapmak (touch-**AGENT-AGENT** to do)  
**tikker-cilik** yapmak (touch-**AGENT-AGENT-NOUN** to do)  
**tikken-lemek** (touch-**INF-INF**)

#### Word formation processes in Dutch

Table 4 presents the distribution of word formation devices of the Turkish children in Dutch.

**Table 4:** Compounding and derivation in Dutch as a function of age and conventionality

	6-year-olds		8-year-olds	
	innovated	established	innovated	established
Compounding	64	118	31	143
Derivation	1	8	3	49

It can be seen that compounding is favored over derivation. Though children tend to make more derivations as they grow older, the number of derivations is relatively small at both age levels. Innovated derivations are almost absent. With regard to compounding it can be seen that the total number of compounds is about the same at the two age levels. However, the proportion of innovated compounds sharply decreases with the children's progression of age. Apparently, as they get more proficient, children give up their innovations in favor of conventional expressions.

In Table 5 the syntactic distribution of compounds in Dutch is presented as a function of age and conventionality. It can be seen that nominal compounding is by far the commonest device as regards both conventional words and the children's innovations.

There is some evidence of first language influence in Dutch compounding processes in the data. First of all, in several cases of nominal compounding children left out the binding phoneme when it was required. The effect is strongest in the youngest group. At age 6, 14 percent of the binding of two nouns caused difficulties; at age 8, this percentage was only 6. However, it should be remembered that the absence of a binding phoneme is not only the case in Turkish; it is also the more basic pattern in Dutch compounds (Van Santen 1984).

**Table 5:** Compounding processes in Dutch as a function of age and conventionality

	6-year-olds		8-year-olds	
	innovated	established	innovated	established
Noun + Noun	41	77	18	96
Verb + Noun	10	31	6	40
Adjective + Noun	7	5	3	5
Noun + Verb	2	-	1	1
Verb + Verb	1	-	-	-
Noun + Noun + Noun	-	5	1	1
Noun + Verb + Noun	2	-	1	-
Adj. + Noun + Noun	1	-	-	-
Verb + Noun + Noun	-	-	1	-

Moreover, there were some cases in which the insertion of binding phonemes was overgeneralized, such as in (24).

- (24) speelgoed-e-winkel (toy shop); target variety:  
speelgoedwinkel

Second, in 'verb+noun-compounds' the 6-year-old children generally used the infinitive form of the verb which is required in Turkish instead of a verb root which is required in Dutch, see (25).

- (25) slapen-deken (sleep-INF-blanket); target variety: slaapzak

Third, children often used circumlocutions in cases where standard Dutch requires compounding. It is interesting to note that at age 6 many such circumlocutions showed the underlying syntactic structure of Turkish, such as in (26) and (27). Apparently, children take the compounding rules of Turkish as a starting point in establishing Dutch compounds.

- (26) winkel-zijn-tafel (shop-POSS-table); target variety: toonbank  
(counter)  
(27) fiets-zijn-sleutel (bicycle-POSS-key); target variety:  
fiets sleutel (bicycle spanner)

In Table 6 the distribution of the main derivational markers used by the children in Dutch is presented. It can be seen that at age 6 the number of derivations is extremely small. The only innovation is snel-ling (fast > gears). There is some evidence that the established derivations displayed are learned as lexicalized patterns. For instance, the pattern gevaar-lijk (danger-ADJ) was produced as vaar-lijk, though vaar is not a meaningful lexeme in Dutch. At age 8, the patterns of derivation in Dutch are a little more diverse. By this age level, children seem to understand the basic process of derivation in Dutch, as is evidenced from such cases as boks-ing (box-INF) derived from the

verb boksen (to bump).

**Table 6:** Derivational processes in Dutch as a function of age and conventionality

	6-year-olds		8-year-olds	
	innovated	established	innovated	established
on-	-	2	-	3
-aar	-	-	-	1
-er	-	-	3	18
-ier	-	-	-	1
-es	-	-	-	1
-in	-	3	-	6
-erij	-	-	-	2
-heid	-	-	-	1
-ing	1	-	-	4
-te	-	1	-	-
-ig	-	-	-	3
-lijk	-	1	-	6
-(t)je	-	1	-	3

The suffix -er, being a frequently used and highly productive marker of agency in Dutch, occurs most and is also innovated in three derivational patterns. 8-year-old children have problems using the suffixes which indicate female agentive. Very occasionally, the suffixes -es and -in are used. However, in many cases the children avoided suffixation in favor of compounding (28) or circumlocution (29). In both examples Dutch requires the suffix -ster.

(28) ijs-verkoop-mevrouw (icecream-sell-lady)

(29) een fiets-er met een meisje die fietst (a bicycle-AGENT with a girl riding a bicycle)

Besides the patterns of suffixation in Table 6, there were some innovative instances of zero-derivation, e.g. hand-stant-en (hand-stand-INF > to stand on ones hands), vierkant-en (square-INF > to make a square).

### Conclusions and discussion

The present study gives evidence for lexical creativity in the speech of Turkish children in the Netherlands. It is clear that these children use their knowledge of their first and second language to create new words. Their lexical innovations seem to be primarily caused by momentary gaps in lexical knowledge.

The productivity of word formation devices in Turkish and Dutch is strikingly different. Application of rules for compounding and suffixation in Turkish was highly successful. Lexical innovations were not restricted to the combination of Turkish lexemes: Dutch lexemes were properly incorporated in Turkish word formation devices as well. The application of word

formation devices in Dutch, especially that of derivation devices, was much more problematic. However, in both languages the children's word formation capacity clearly improved in the age range from 6 to 8. The difference in productivity of word formation devices in the two languages at different age levels can at least partly be explained from the difference in size of the lexicons children have at their disposal. In an earlier study (Verhoeven 1988) it was found that in the age range from 6 to 8 Turkish children make fair progress in their lexical knowledge in Turkish and Dutch, their lexical knowledge in Turkish being significantly ahead all the time.

There is evidence that the principles underlying the choice and construction of word formation principles, as earlier formulated by Clark, underlie the children's word formation processes in Turkish and Dutch. First, the principle of semantic coherence seem to apply. In both languages children prefer devices which are close to a one-to-one mapping of meaning and form. In Turkish, displaying an inflectional system which is highly regular, children prefer affixation over compounding. On the other hand, in Dutch with its irregular patterns of derivation children favor compounding over derivation. Second, there is some evidence for the principle of regularization. In either language we found clear instances of innovations showing that children attended to the semantic coherence of the new forms expressed, and regularized the resulting paradigms. The incorporation of sey (thing) in Turkish compounds and the non-use of binding phonemes in Dutch nominal compounds are cases in point. Finally, there is evidence for the principle of productivity. Lexical devices in both Turkish and Dutch were acquired in a predictable order with productive forms mastered earlier. This principle applied for the children's innovations as well as for their more established devices.

In addition, there is some minor evidence for interlingual influences in the word formation processes displayed by the children. In Turkish there was some interlingual influence at a more advanced stage of compounding when children got more proficient in coining words in Dutch. In Dutch there was some first language influence in the initial stage of acquisition.

In conclusion, bilingual children seem to rely on several general principles as they learn to use word formation devices, while they gradually modify such principles in accordance to the structure of the languages under consideration. In either language children have to learn what devices are available and how they can be used to construct new words. In doing so some minor interlingual influences can be expected.

### **Acknowledgements**

This paper was prepared thanks to the support of the Netherlands Foundation for the Advancement of Pure Research (Z.W.O.). I am grateful to Karl Zimmer for his worthwhile comments on an earlier version of the manuscript.

### References

- Anderson, S.R. 1985. Typological distinctions in word formation. In: T. Shopen (ed.), *Language Typology and Syntactic Description*, Vol. III. Cambridge: University Press.
- Berman, R.A. & Y. Sagi. 1981. Word formation processes and lexical innovations of young children. *Hebrew Computational Linguistics Bulletin*, 18, 36-62.
- Booij, G.E. 1977. *Dutch Morphology*. Dordrecht: Foris.
- Broeder, P., Extra, G., Van Hout, R. & K. Voionmaa. In press. Word formation in talking about entities.
- Clark, E.V. 1981. Lexical innovations: How children learn to create new words. In: W. Deutsch (ed.), *The Child's Construction of Language*. London: Academic Press.
- Clark, E.V. 1982. The young word maker: A case study of innovation in the child's lexicon. In: E. Wanner & L. Gleitman (eds.), *Language Acquisition: The State of the Art*. Cambridge: University Press.
- Clark, E.V. 1983. Convention and contrast in acquiring the lexicon. In: Th. Seiler & W. Wannenmacher (eds.), *Concept Development and the Development of Word Meaning*. Berlin: Springer Verlag.
- Clark, E.V. & R.A. Berman. 1984. Structure and use in the acquisition of word formation. *Language*, 60, 3, 542-590.
- Clark, E.V. & B.F. Hecht. 1982. Learning to coin agent and instrument nouns. *Cognition*, 12, 1-24.
- Clark, E.V., Hecht, B.F. & R.C. Mulford. 1986. Coining complex compounds in English: Affixes and word order in acquisition. *Linguistics*, 24, 7-29.
- Dede, M.A. 1978. A syntactic and semantic analysis of Turkish nominal compounds. Unpublished Doctoral Dissertation, University of Michigan.
- Ekmekçi, O. 1986. Creativity in the language acquisition process. In: H.E. Boeschoten & L.Th. Verhoeven (eds.), *Studies on Modern Turkish*. Tilburg: University Press.
- Kennedy-Jonker, A. 1984. Bilingualism and lexical innovations. In: D.M. Singleton & D.G. Little (eds.), *Language Learning in Formal and Informal Contexts*. Dublin: IRAAL.
- Lewis, G.L. 1967. *Turkish Grammar*. Oxford: Clarendon Press.
- Olshtain, E. 1987. The acquisition of new word formation processes in second language acquisition. *SSLA*, 9, 221-232.
- Van Santen, A. 1984. *De Morfologie van het Nederlands*. Dordrecht: Foris.
- Van den Toorn, M.C. 1982. Tendenzen bij de beregeling van de verbindingsklank in samenstellingen. *Nieuwe Taalgids*, 75, 24-33; 153-160.
- Verhoeven, L.T. 1988. Lexical development in ethnic minority children. *Belgian Journal of Linguistics*, in press.
- Walden, Z.P. 1982. The root of roots: Children's construction of word-formation processes in Hebrew. Unpublished Doctoral Dissertation, Harvard University.